OM 3235

ONKYO SERVICE MANUAL

STEREO CASSETTE TAPE DECK

MODEL TA-RW66

Black model

UDN, UDC, UD	120V AC, 60Hz
UG	220V AC, 50Hz
UW	120 or 220V AC, 50/60Hz
UQA, UQB	240V AC, 50Hz

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ ON THE SCHEMATIC DIAGRAM AND IN THE PARTS LIST ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE THESE COMPONENTS WITH ONKYO PARTS WHOSE PARTS NUMBERS APPEAR AS SHOWN IN THIS MANUAL.

MAKE LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

ONKYO®
AUDIO COMPONENTS

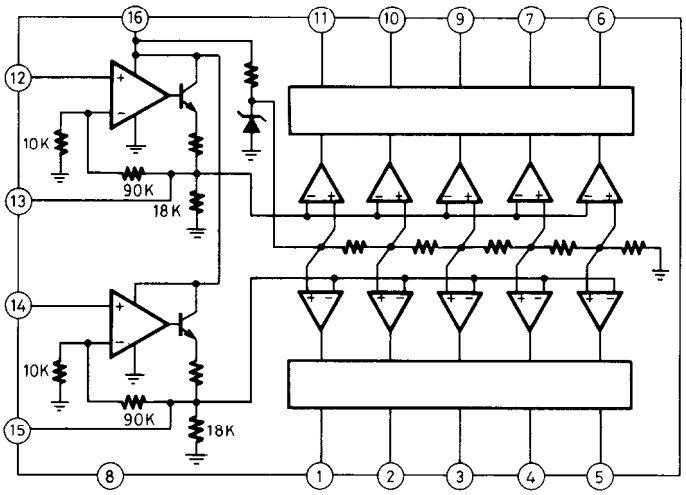
SPECIFICATIONS

Track System:	4-tracks, 2-channels
Recording System:	AC bias
Erasing System:	AC erase
Tape Speed:	4.8 cm/sec (1-7/8 i.p.s.)
Wow and Flutter:	0.07% (WRMS)
Frequency Response:	20 – 15,000Hz (Normal) (30 – 14,000Hz ± 3dB) 20 – 16,000Hz (High) (30 – 15,000Hz ± 3dB) 20 – 17,000Hz (Metal) (30 – 16,000Hz ± 3dB)
S/N Ratio:	Dolby NR out: 56dB (metal position tape) A noise reduction of 10dB above 5kHz and 5dB at 1kHz is possible with Dolby B NR. A noise reduction of 20dB at 5kHz is possible with Dolby C NR.
Input Jacks:	Line IN: 2 Input sensitivity: 60mV Input impedance: 50k-ohm
Outputs:	Line OUT: 2 Std. output level: 500mV (0dB) Optimum load impedance: over 50k-ohm Headphone Jack: 1 Optimum load impedance: 8 ohm to 200 ohm

Motors:	DC servo motor: 2
Heads:	REC/PB: Special Hard Permalloy x 2 Erase head: Ferrite x 1
Power Supply:	AC120V/60Hz, 120/220V 50/60Hz,
Power Consumption:	18 watts
Dimensions:	435(W) x 122(H) x 259(D)mm (17-1/8" x 4-7/8" x 10-3/16")
Weight:	4.4 kg. (9.7 lbs.)

Because of product improvements, specifications and external appearance are subject to change without notice.

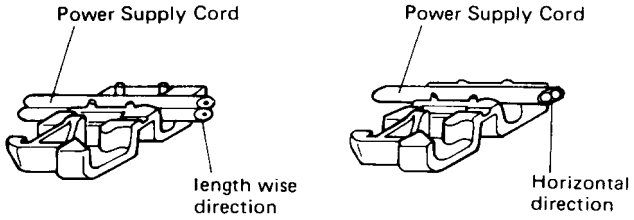
IR-2E27



SERVICE PROCEDURES

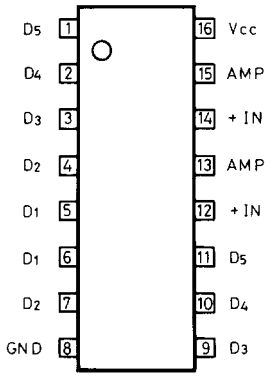
1. Replacement of power supply cord

There are two power supply cord outlets on the strainrelief. Insert them in prescribed direction to ensure safety. AS-UC-3 (UD<120V> model) should be inserted lengthwise and other types of cords should be inserted horizontally.

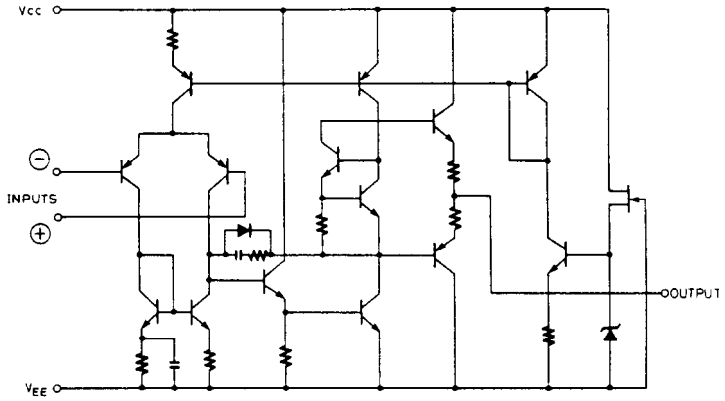


2. Instruction resistance measurement

Connect the insulating-resistance tester between the plug of power supply cord and chassis.
Specifications; 500V more than 10MΩ

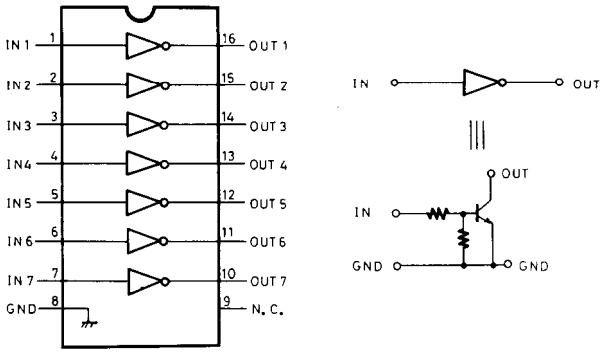


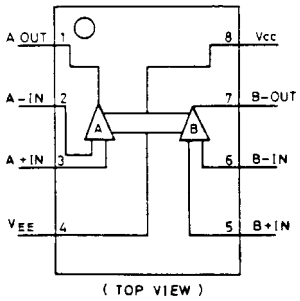
NJM-2068D-D



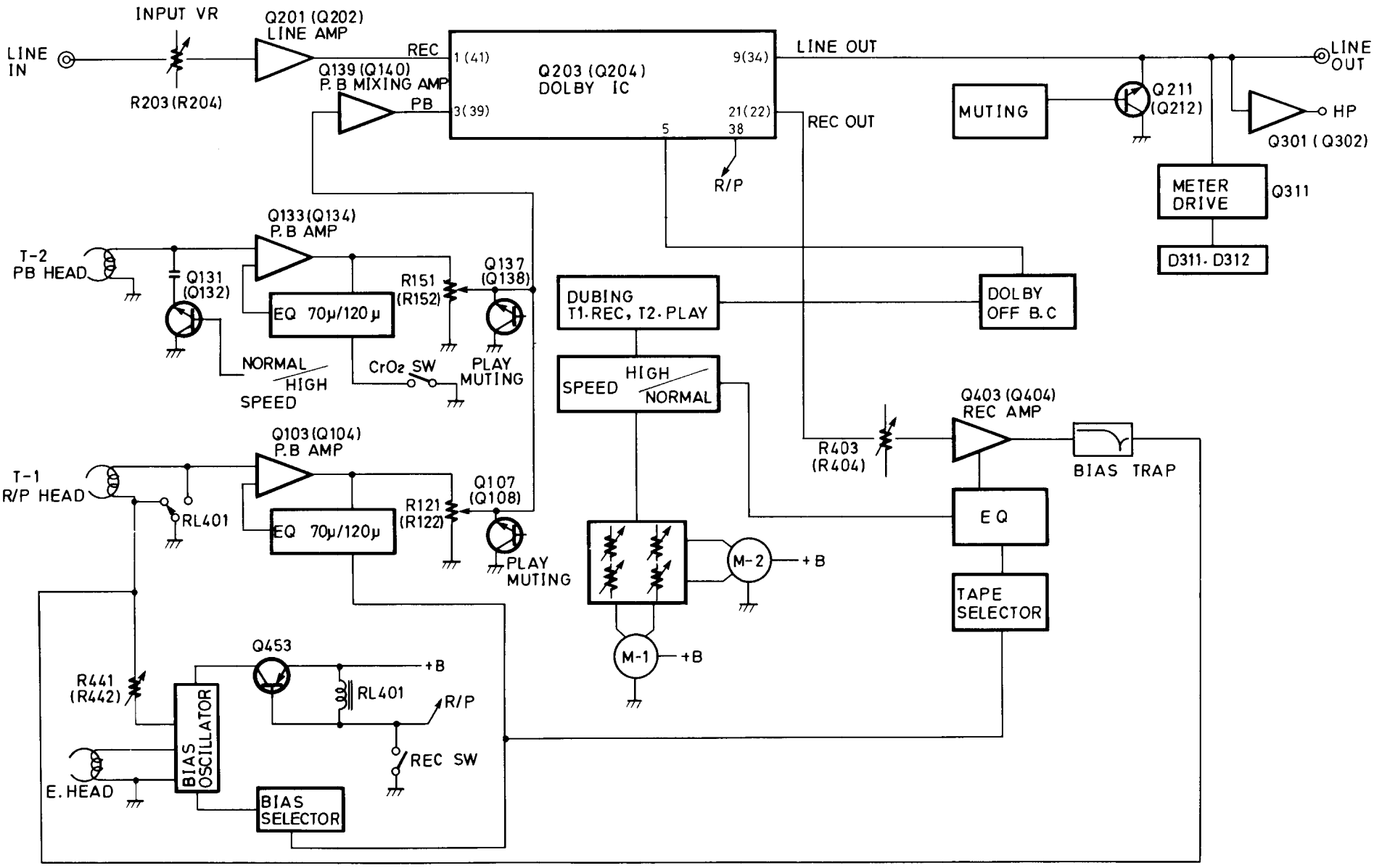
IC BLOCK DIAGRAM

BA6251 (REC AMP. EQ. SW)





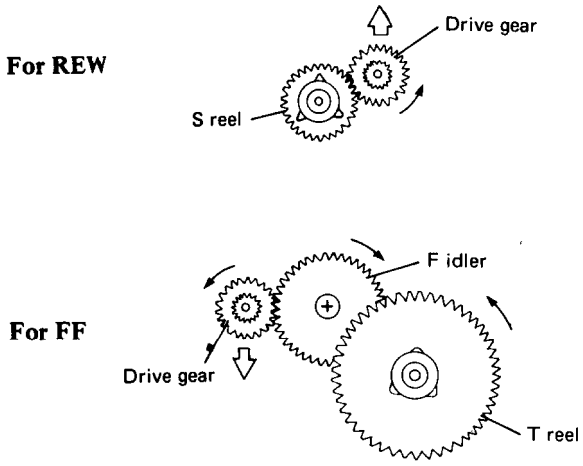
BLOCK DIAGRAM



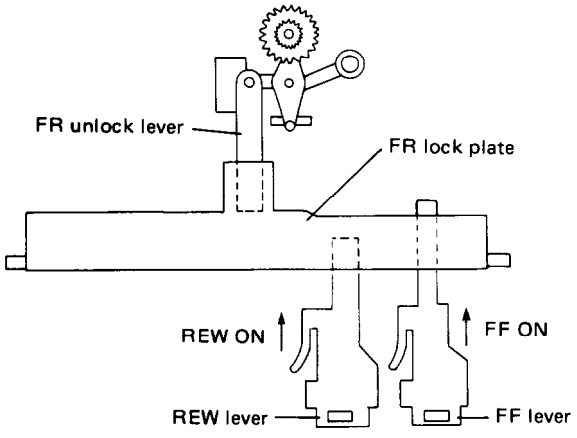
TAPE (1) MECHANISM OPERATION

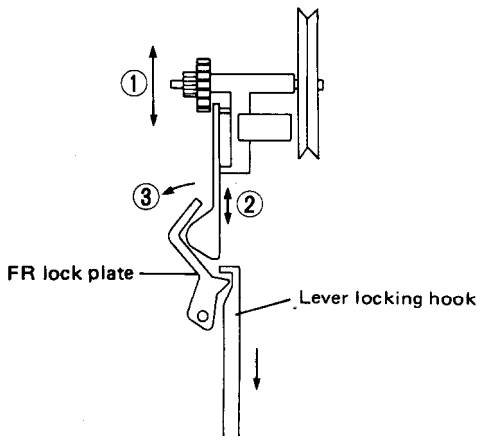
1. FF and REW Auto-Stop Mechanism

When the S or T reel is stopped during REW or FF, the drive gear, which is still trying to rotate, moves upward for REW and downward for FF.



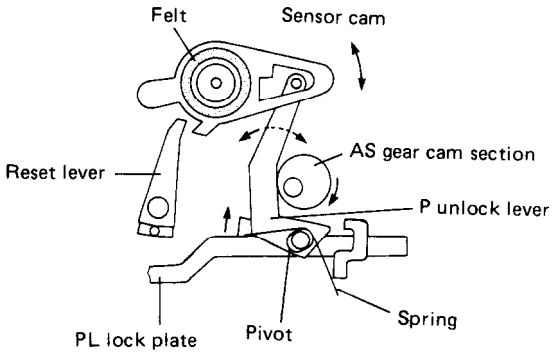
When the FR idler (drive gear) moves up and down 1 , the FR unlock lever also moves up and down 2 causing the FR lock plate to rotate (move upward) 3 ,
As the FR lock plate moves upward (flot S), the lever locking hook is released to switch to the stop mode.

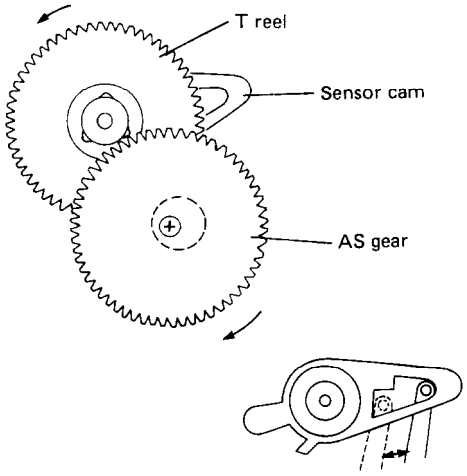




2. PLAY Auto-Stop Mechanism

2-1 Tape Transport During the play Mode





When the T reel rotates, friction with the felt causes the sensor cam to rotate to the left. However, the rotations of the AS gear (from the cam) cause the P unlock lever to back and forth. The sensor arm also moves back forth because the boss of the P unlock lever is in the sensor cam. The boss therefore moves back and forth a long the underside of the insid of the sensor cam.

2-2 Auto-Stop

If the T reel is stopped during play mode transport, the force generated by the sensor arm rotating to the left no longer exists, but the AS gear does not stop rotating. As aresult, the P unlock lever boss, which was moving back and forth on the underside of the inside of the sensor cam, now moves to the top of the cam.
However, since the top is shorer, the back and forth movement of the P unlock lever is stopped it cam be completed. This causes the lever to pivot at the point where it has stopped, so the PL lock plate is moved to the left and PLAY lever is unlocked.

TAPE (2) MECHANISM OPERATION

PLAY operation (refer to Fig. 1 and Mechanism Disassembly dwg.)

Push play button (83) ⟶ Trigger (ASSIST) (77) lock shifts ⟶ Cam (ASSIST) (72) meshes with Flywheel AS (C) (2) ⟶ Cam (ASSIST) (72) turns, Base AS (HEAD) (20) raises. For FWD, by means of arm (REVERSE) (14), Flywheel AS (C) (2), Gear A (71) (right side) and Reel AS (F) (112) mesh, and tape reels.

F.F. operation

If FF button (84) is pushed, by means of Arm (FR) (131), Arm (DRIVE) (130) gear, Flywheel AS (C) (2), and Reel AS (F) (112) mesh, and tape reels.

REW operation

If REW button (84) is pushed, by means of Arm (FR) (131), Arm (DRIVE) (130) gear, Flywheel (3), and Reel AS (R) (113) mesh, and tape reels.

AUTO STOP operation (refer to Mechanism Exploded View for No. following part name)

At the end of the tape, the reel stops.

Actuating plate (CLUTCH) (111) ⟶ Sensor (107) operates, Sensor (107) is pulled by the Arm (SENSOR) (106) at Gear (STOP) (110) Arm (RELEASE) (122) ⟶ Lever AS (RELEASE) (117) ⟶ Release (18) operates, Release plate (115) releases.

Head reverse rotation

With the Change arm (MODE) (81) at the Reverse mode position, when the tape end is reached, and when the mechanism enters the auto stop operation, Trigger (104) operates, Cam AS (109) lock opens, Cam AS (109) makes a half turn, and by means of Arm (REVERSE) (14), the head is caused to rotate in reverse direction.

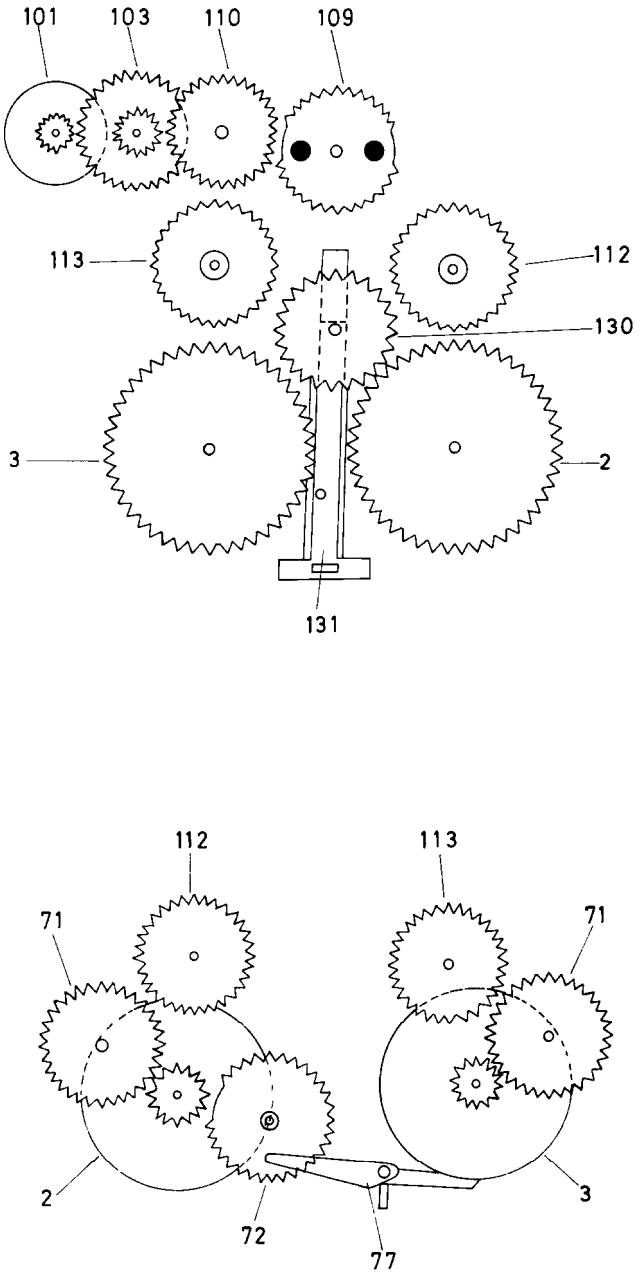


fig.—1

ADJUSTMENT PROCEDURES

PRECAUTIONS

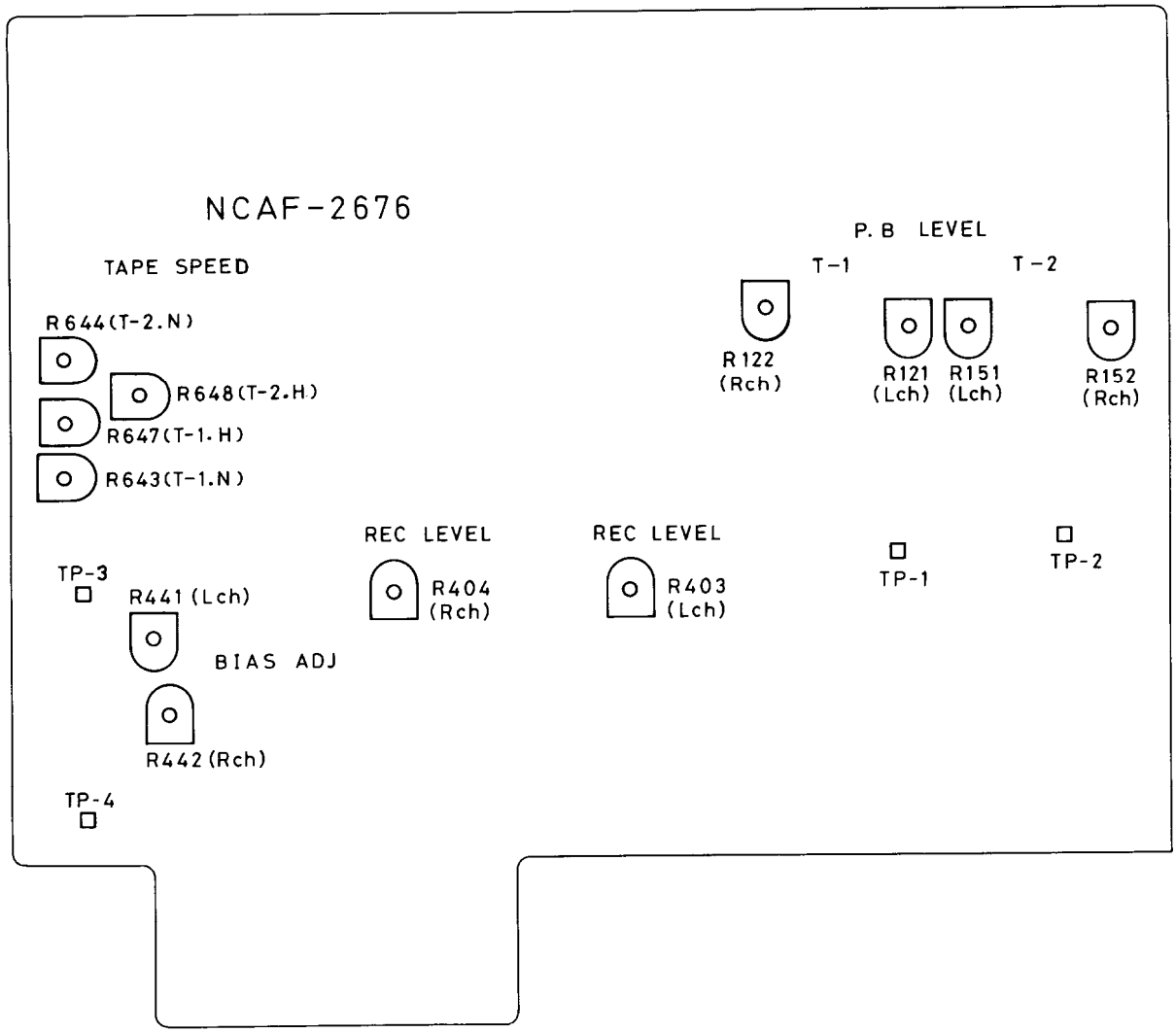
1. Before adjustment, clean the following parts with an alchol moinstend swab.
   * record/playback head
   * erase head
   * pinch roller
   * capstan
2. Do not use magnetized screwdriver for adjustments.
3. Demagnetize record/playback head with a head demagnetizer.

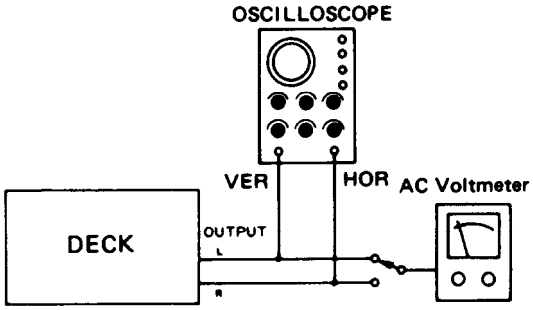
TEST EQUIPMENT/TOOLS REQUIRED:

Audio oscillator
Digital frequency counter
Oscilloscope
Attenuator
AC voltmeter
Non-magnetic screw driver
Blank tapes (completely erased)
NORMAL . . . . . NEW UD90
HIGH . . . . . NEW XL-II90
METAL . . . . . NEW MX60
Test tapes
VTT-658 : 10 KHz, −15dB
MTT-111 : 3 kHz, −10dB
MTT-150 : Dolby level calibration 400Hz, tone 200nWb/m

	Item	Connection of Instrument	Line input	Test tape	Mode	Output indicator	Adjustment point	Adjust	Remarks
1	T-1 H.speed	Frequency counter to LINE output terminal		MTT-111	PB	Frequency counter	Semi-fixed R647	6,010 ± 10Hz	High speed connect the TP-3 to GND
	N.speed				PB		R643	3,005 ± 5Hz	
	T-2 H.speed				PB		Semi-fixed R648	6,020 ± 10Hz	
	N.speed				PB		R644	3,015 ± 5Hz	
2	Head azimuth	AC voltmeter and oscilloscope to LINE output terminal		VTT-658	PB	AC voltmeter	Head azimurth screw	Maximum and same phase at channels L and R	See fig. 1
3	Playback level	AC voltmeter to terminals TP-1 and TP-2		MTT-150	PB	AC voltmeter	T-1 R-121. R-122 T-2 R-151. R-152	300mV	
4	Bias current	Fig. 2	1KHz, −20dB and 12KHz, −20dB	NEW XL-II90	T-1 REC/PB	AC voltmeter	R-441 (Ch. L) R-442 (Ch. R)	Same level at REC/PB	Input VR maximum
5	Record level	Fig. 2	1 KHz		REC PAUSE	AC voltmeter	Attenutor or AF OSC output	350mV	Input VR maximum
					REC/PB	AC voltmeter	R-403 (Ch. L) R-404 (Ch. R)	Same level at REC/PB	
6	Bias OSC frequency	Frequency counter to TP-4			T-1 REC		L-407	85KHz±2KHz	Connection cable 10: 1

PLAY torque . . . . . 30 – 70g/cm
FF.REW torque . . . . . 70 – 160g/cm
Back tention . . . . . 1.5 – 5g/cm





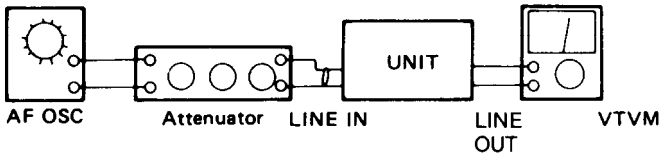
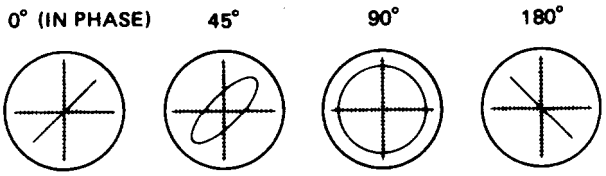


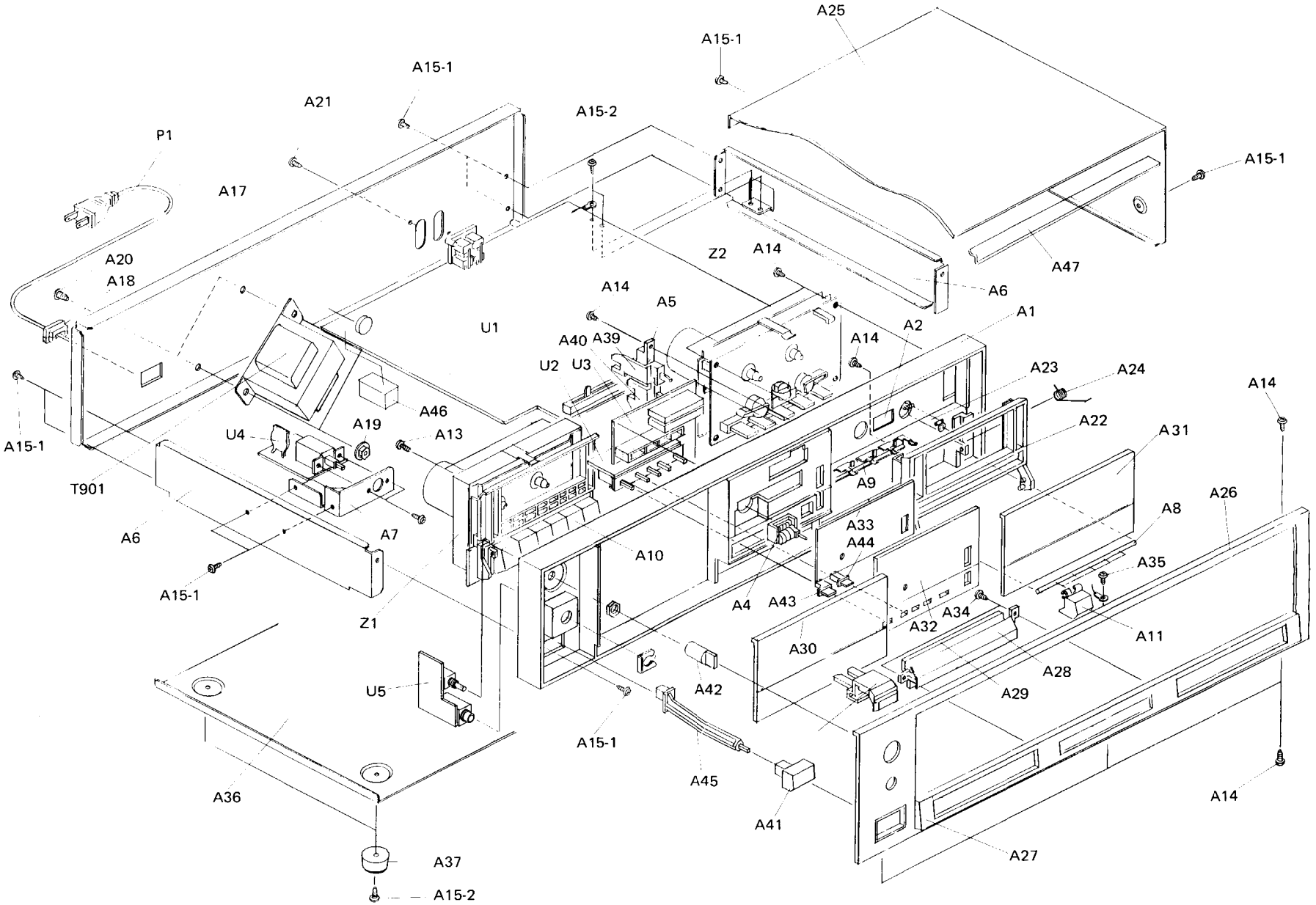
fig-2



Confirming phase relationship

fig-1

CHASSIS-EXPLODED VIEW



CHASSIS EXPLODED VIEW PARTS LIST

REF. NO.	PART NO.	DESCRIPTION
A1	27110287C	FRONT BRACKET
A2	27262412	PLATE (T2)
A3	27141086	BRACKET
A4	24601203	TAPE COUNTER
A5	27300830A	RAIL (T2)
A6	27115168C	SIDE BRACKET (L)
A7	27140990A	BRACKET (POW)
A8	27260219	SHAFT
A9	27180306B	SPRING (KNOB)
A10	28322545	KNOB (T1)
A11	28322544C	KNOB (T2)
A12	82143006	PAN-HEAD SCREW 3P+6FN BC
A13	831430100	TAP-TIGHT SCREW 3TTW+10PBC
A14	833430080	TAP-TIGHT SCREW 3TTP+8PBC
A15-1	834430068	TAP-TIGHT SCREW 3TTS+6BBC
A15-2	831130088	TAP-TIGHT SCREW 3TTW+8B
A16	833426060	TAP-TIGHT SCREW 2.6TTP+6PBC
A17	27120872A	BACK PANEL (D)
	27120879	BACK PANEL (G)
	27120880	BACK PANEL (W)
	27120892	BACK PANEL (Q)
A18	27300750	BUSHING (CORD)
A19	86414010	FLANGE NUT FWN4X10FN
A20	830440109	TAP-TIGHT SCREW 4TTC+10CBC
A21	834430108	TAP-TIGHT SCREW 3TTS+10BBC
A22	27300834A	FRAME ASS'Y (CASSETTE)
A22-1	24605334	SPRING (CASSETTE)
A22-2	833420068	TAP-TIGHT SCREW 2TTP+6BBC
A23	24610994	DAMPER UNIT
A24	27180307	SPRING (FRAME)
A25	28184274B	TOP COVER
A26	15108121	FRONT PANEL ASS'Y
A27	27215116B	COSMETIC FRAME
A28	27262293-1	PLATE (VR)
A29	27300831	RAIL (VR)
A30	28400270A	CASSETTE LID ASS'Y (T1)
A31	28400273A	CASSETTE LID ASS'Y (T2)
A32	28191353A	CLEAR PLATE (C)
A33	28133167B	BACK PLATE
A34	833430080	TAP-TIGHT SCREW 3TTP+8PBC
A35	834230108	TAP-TIGHT SCREW 3TTS+10BN
A36	27170229	BOTTOM BOARD
A37	27175003A	LEG
A38	28322547	KNOB ASS'Y (VR)
A39	28322548A	KNOB ASS'Y (MODE)
A40	28322550A	KNOB ASS'Y (DIR)
A41	28321905A	KNOB (POW)
A42	28322028	KNOB (TONE)
A43	28322552	KNOB (REC)
A44	28322553	KNOB (SEL)

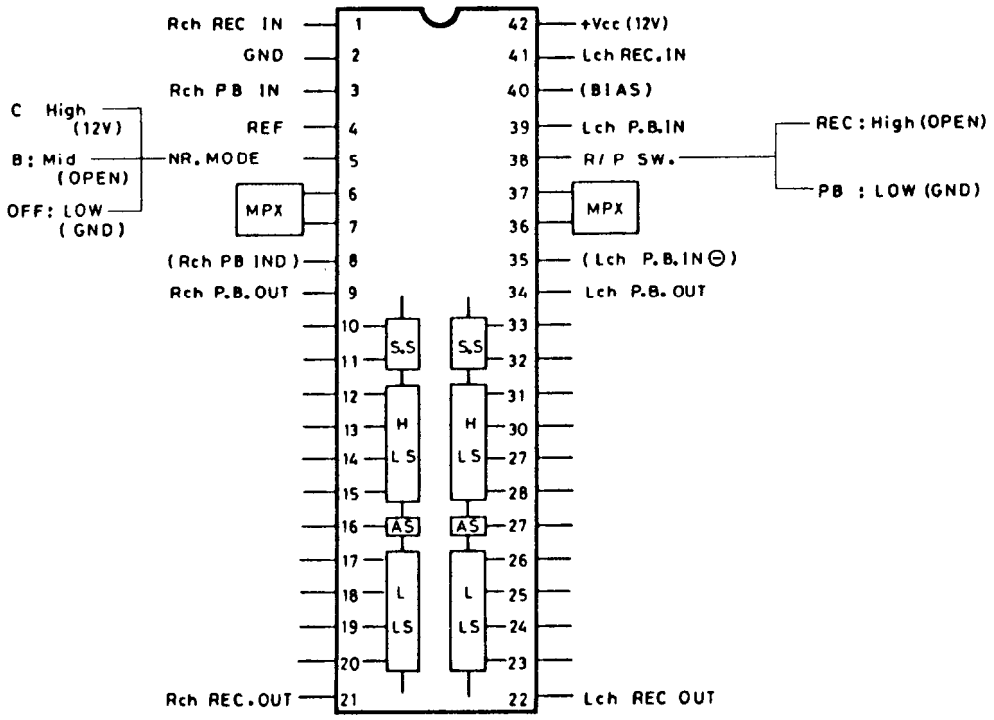
REF. NO.	PART NO.	DESCRIPTION
A45	27273030C	JOINT (L)
A46	28140397	CUSHION
A47	28140699	CUSHION
T901 ⚠	2300110A	NPT-920D POWER TRANSFORMER (D)
⚠	2300111A	NPT-920G POWER TRANSFORMER (G)
⚠	2300112A	NPT-920DG POWER TRANSFORMER (W)
⚠	2300137	NPT-920Q POWER TRANSFORMER (Q)
P1 ⚠	253099C	AC CORD (D)
⚠	253129A	AC CORD AS-CEE (G/W)
⚠	253118	AC CORD AS-SAA (Q)
S902 ⚠	25065123	NSS-1258P VOLTAGE SELECTOR SWITCH (W)
Z1	244093	CASSETTE DECK MECHANISM, NDM-85 (T1)
Z2	244094	CASSETTE DECK MECHANISM, NDM-86 (T2)
U1	15108576-1	NAAF-2676-1 MAIN PC BOARD ASS'Y
U2	15108577-1	NASW-2677-1 TAPE SELECTOR SWITCH PC BOARD ASS'Y
U3	15108578-1	NADIS-2678-1 DISPLAY PC BOARD ASS'Y
U4	15108579-1	NAPS-2679-1 POWER SWITCH PC BOARD ASS'Y
U5	15108580-1	NAHP-2680-1 HEADPHONE TERMINAL PC BOARD ASS'Y

NOTE: THE COMPONENTS IDENTIFIED BY MARK ⚠ ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE ONLY WITH PARTS NUMBER SPECIFIED.

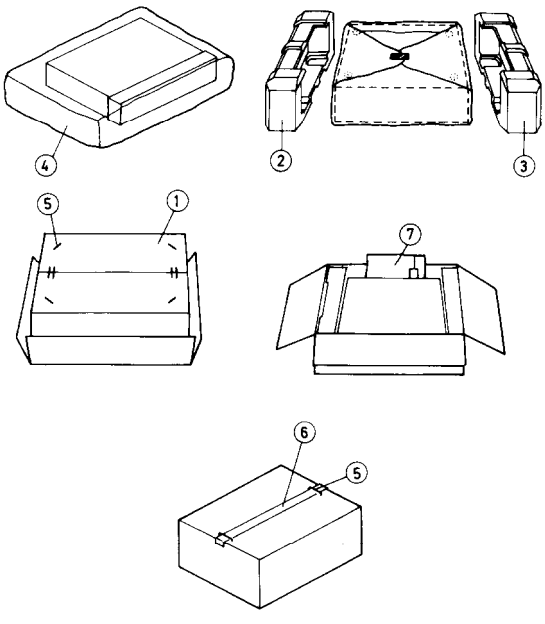
NOTE: (D): Only 120V model
(G): Only 220V model
(W): Only Universal model
(Q): Only 240V model

IC BLOCK DIAGRAM

HA12088NT
(DOLBY NR IC 2CH in one package)



PACKING VIEW



D Model

REF NO.	PART NO.	DESCRIPTION
1	29051323A	Master carton box
2	29090947A	Pad (L)
3	29090946A	Pad (R)
4	29100037A	650 x 500 Poly bag
5	282301	Sealing hook
6	260012	Damplon tape
7	Accessary bag ass'y	
	29341016	Instruction manual
	2010095	Connection cable
	29365006-7	Waranty card (N)
	29358002C	Service station list (N)
	29100006A	350 x 250 Poly bag

G/W Model

REF NO.	PART NO.	DESCRIPTION
1	29051323A	Master carton box
2	29090947A	Pad (L)
3	29090946A	Pad (R)
4	29100037A	650 x 500 Poly bag
5	282301	Sealing hook
6	260012	Damplon tape
7	Accessary bag ass'y	
	29341017	Instruction manual
	2010095	Connection cable
	25055018	Conversion plug (CV-K-2) (W)
	29100006A	350 x 250 Poly bag

NOTE
(N) : Only U.S.A. Model
(W) : Only 120/220V Model

PRINTED CIRCUIT BOARD PARTS LIST

MAIN CIRCUIT PC BOARD (NAAF-2676-1)

CIRCUIT NO.	PART NO.	DESCRIPTION
	ICs	
Q103, Q104	222956	NJM-2068DD
Q133, Q134	222956	NJM-2068DD
Q139, Q140	222917	NJM-4558SD
Q201, Q202	222811 or 222502	NJM-4558DD or NJM-4558DX
Q203, Q204	222910	HA-12088NT
Q301, Q302	222652	M5218L
Q403, Q404	222808	M5218P
Q413	222912	BA6251
Q901	222780120	78M12
Q902	222790122	79M12
	Transistors	
Q105-Q108	2211255, 2210746 or 2212485	2SC1815GR, 2SC945AP or JC501Q
Q131, Q132	221299	DTC114TC
Q135-Q138	2210746 or 2212485	2SC945AP or JC501Q
Q209	2210746 or 2212485	2SC945AP or JC501Q
Q211, Q212	2211705, 2211706, 2212794 or 2212795	2SD655E, 2SD655F, 2SD1468R or 2SD1468S
Q213, Q214	2210746 or 2212485	2SC945AP or JC501Q
Q401, Q402	2210746 or 2212485	2SC945AP or JC501Q
Q405-Q412	2212304	2SK381D
Q451, Q452	2211544	2SC1959Y
Q453	2211454 or 2212494	2SA1015Y or JA101P
Q454	2211255, 2210746 or 2212485	2SC1815GR, 2SC945AP or JC501Q
Q601-Q609, Q631, Q632	2211255, 2210746 or 2212485	2SC1815GR, 2SC945AP or JC501Q
Q633, Q634	2211454 or 2212494	2SA1015Y or JA101P
Q635	2212600	DTA124ES
Q903	2201074 or 2201385	2SD880Y or 2SD330E

CIRCUIT NO.	PART NO.	DESCRIPTION
	Diodes	
D401-D404	223155 or 223163	1SS138 or 1SS133
D405	223145, 223124 or 223150	1S2076TD, 1S2473 or US1040
D601, D602	223155 or 223163	1SS138 or 1SS133
D604	223155 or 223163	1SS138 or 1SS133
D606	223145, 223124 or 223150	1S2076TD, 1S2473 or US1040
D607, D609	223155 or 223163	1SS138 or 1SS133
D610	223155 or 223163	1SS138 or 1SS133
D613-D616	223155 or 223163	1SS138 or 1SS133
D619, D621	223155 or 223163	1SS138 or 1SS133
D620	223145, 223124 or 223150	1S2076TD, 1S2473 or US1040
D622	2239552	RD8.2EB2
D901	223862 or 223890	WL01 or W01RL
D902, D903	223842 or 223891	GP15B or RL152
D904	2239651 or 2243241	RD13EB1 or MTZ13A
	LED	
D608	225232	LTZ-R15
	Coils	
L201, L202	233349	NMC-6053
L203, L204	233245 or 233352	NMC-2029 or NMC-2056
L205, L206	233188 or 231077	NCH-1033 or NCH-2125
L401, L402	231040, 24606072 or 231085	NCH-2080, NCH-1010 or NCH-2133
L403, L404	231036, 24606068 or 231081	NCH-2076, NCH-1006 or NCH-2129
L405, L406	233283 or 233314	NCH-4060 or NCH-2097

CIRCUIT NO.	PART NO.	DESCRIPTION
	OSC Block	
L407	231104	NL0-2044
	Capacitors	
C107, C108	354744709	47μF, 16V, Elect.
C115, C116	354780109	1μF, 50V, Elect.
C137, C138	354744709	47μF, 50V, Elect.
C145, C146	354780109	1μF, 50V, Elect.
C201, C202	354741009	1μF, 16V, Elect.
C203, C204	354781009	1μF, 50V, Elect.
C211, C212	354783399	0.33μF, 50V, Elect.
C217, C218	354741009	10μF, 16V, Elect.
C220	354744719	470μF, 16V, Elect.
C221, C222	354741009	10μF, 16V, Elect.
C227, C228	354780109	1μF, 50V, Elect.
C229, C230	354786899	0.68μF, 50V, Elect.
C231, C232	354780229	2.2μF, 50V, Elect.
C239, C240	354786899	0.68μF, 50V, Elect.
C241, C242	354780229	2.2μF, 50V, Elect.
C243-C246	354741009	10μF, 16V, Elect.
C425, C426	354781099	0.1μF, 50V, Elect.
C427, C428	354741009	10μF, 16V, Elect.
C455	370131234	0.12μF, 100V, APS.
C456, C460	354780109	1μF, 50V, Elect.
C602	354780109	1μF, 50V, Elect.
C603	354743319	330μF, 16V, Elect.
C604	354742209	22μF, 16V, Elect.
C605	354750479	4.7μF, 25V, Elect.
C607	354780109	1μF, 50V, Elect.
C608	354750479	4.7μF, 25V, Elect.
C612	354741009	10μF, 16V, Elect.
C613	354780109	1μF, 50V, Elect.
C901	354752229	2200μF, 25V, Elect.
C902	354751029	1000μF, 25V, Elect.
C903, C904	354781099	0.1μF, 50V, Elect.
C906	354754719	470μF, 50V, Elect.
C907, C908	354741019	100μF, 16V, Elect.
C911-C916	354744709	47μF, 16V, Elect.
C917	354754709	47μF, 25V, Elect.
	Resistors	
R121, R122	5215046	N08HR50KBC, Semi-fixed
R151, R152	5215046	N08HR50KBC, Semi-fixed
R403, R404	5215046	N08HR50KBC, Semi-fixed
R441, R442	5215024	N08HR100KBC, Semi-fixed
R203, R204	6142034	N60LG50KA10E, Variable
R455	441521004	10Ω, 1/2W, Oxidefilm
R456	441528214	820Ω, 1/2W, Oxidefilm
R457	441526814	680Ω, 1/2W, Oxidefilm
R458	441521814	180Ω, 1/2W, Oxidefilm
R639, R640	4000103	LT3600V4S-1.2K
R643, R644	5210060	N06HR2.2KBD, Semi-fixed
R647, R648	5210062	N06HR2.2KBD, Semi-fixed
R901	441520224	2.2Ω, 1/2W, Oxide-film
R902	441523314	330Ω, 1/2W, Oxide-film

CIRCUIT NO.	PART NO.	DESCRIPTION
	Miscellaneous	
RL401	25065174	NRL-2P1A, DC-12V-09, Relay
P101	25055136	NPLG-6P-120, Plug
P131	25055134	NPLG-4P-118, Plug
P401	25055132	NPLG-2P-116, Plug
P601	25045084	NPJ-4PDBL-42, Plug
P602	25055139	NPLG-9P-123, Plug
P603	25055141	NPLG-11P-125, Plug
	27150189	Shild plate
	27160029	RD-07, Radiator
	27160029-1	RD-07B, Radiator
	82143006	3P+4FN (BC), Screw

TAPE SELECTOR SWITCH CIRCUIT PC BOARD (NASW-2677-1)

CIRCUIT NO.	PART NO.	DESCRIPTION
	Switch	
S601-S605	25035527	NPS-332-122-122-L489, Push

DISPLAY CIRCUIT PC BOARD(NADIS-2678-1)

CIRCUIT NO.	PART NO.	DESCRIPTION
	ICs	
Q311, Q312	222962	IR2E27A
	LEDs	
D311, D312	225165	SEL-9520-MB02
D621, D622	225134	GL-3NG1
D623-D627	225126	GL-3PR1
	Capacitors	
C311-C314	353750479	4.7μF, 25V, Elect.
	Resistors	
R319	441623904	39Ω, 1W, Oxide-film
	Holder	
	27190460	Holder (LED-5)
	27190461A	Holder (LED-2)

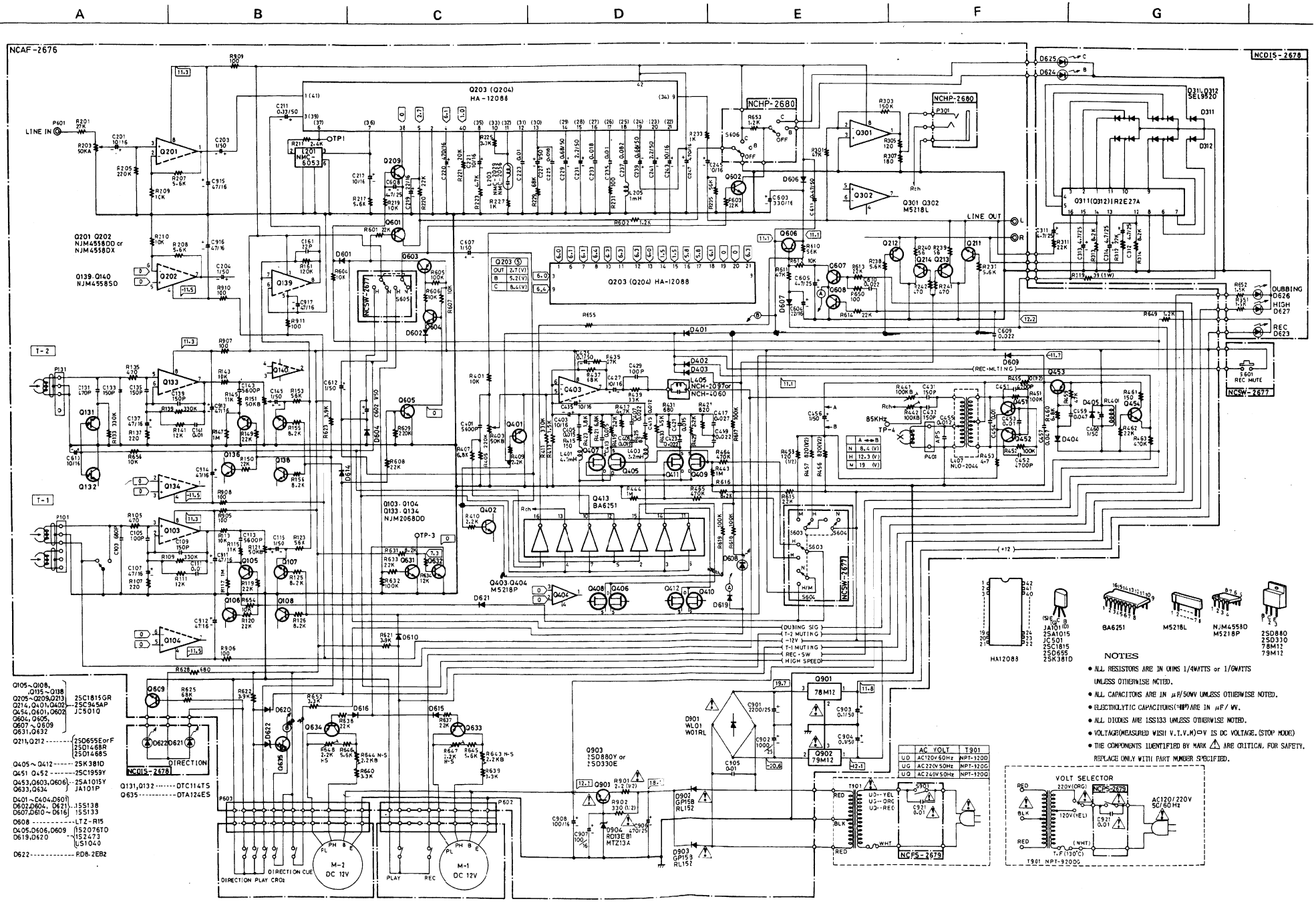
POWER SWITCH CIRCUIT PC BOARD (NAPS-2679-1)

CIRCUIT NO.	PART NO.	DESCRIPTION
C921	3500065A	DE7150FE, 0.01μF, IS
	27300601	SB-1925, Cover
S902	25035375	NPS-111-L339P, Push switch

HEADPHONE TERMINAL CIRCUIT PC BOARD (NAHP-2680-1)

CIRCUIT NO.	PART NO.	DESCRIPTION
P301	25045187	HLJ0541-01-010
S606	25030266	NPS-123-255BM, Switch

SCHEMATIC DIAGRAM



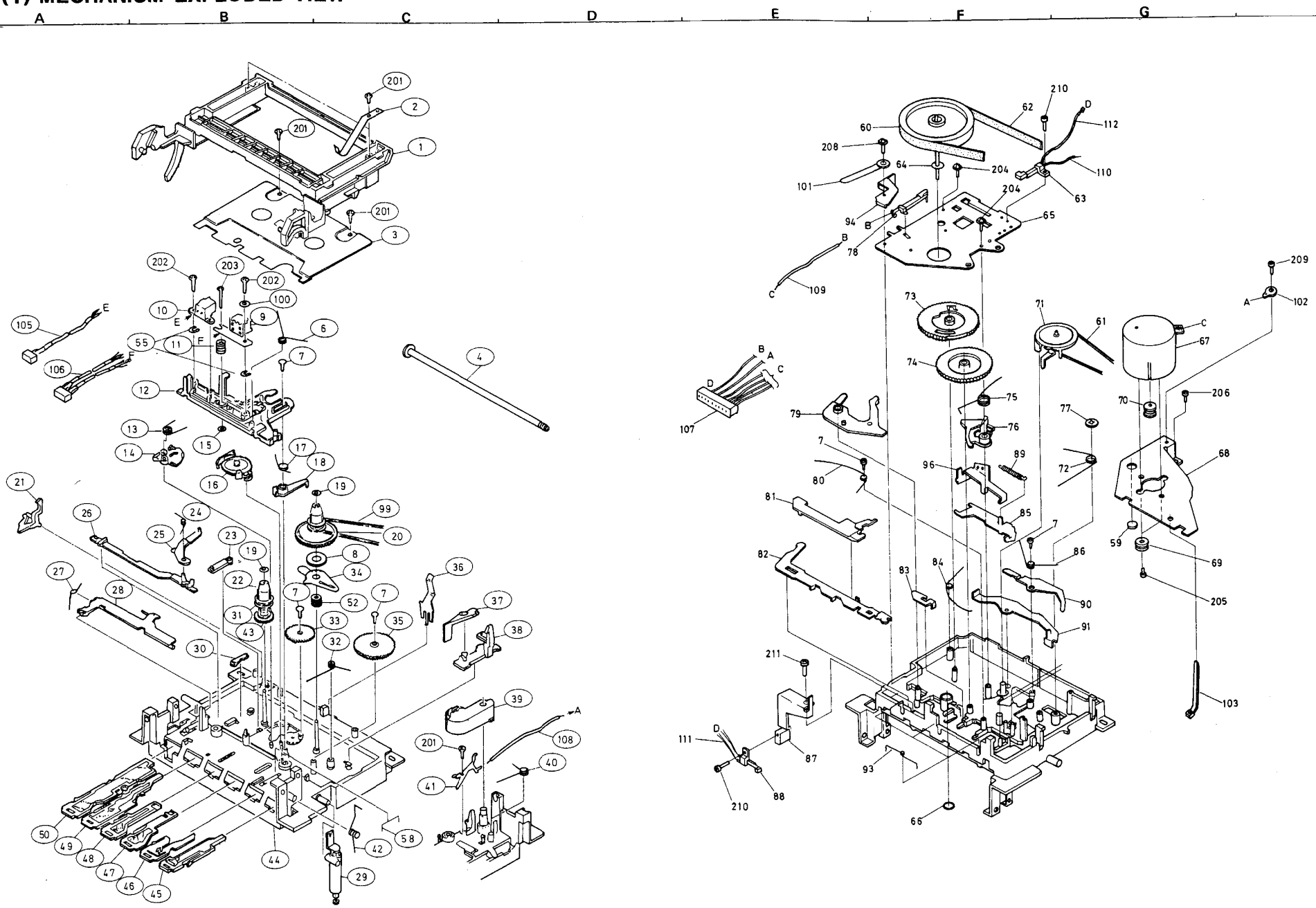
TAPE (1) MECHANISM-PART LIST

REF. NO.	PARTS NO.	DESCRIPTION
1	24611151	CASSETTE CASE
2	24605334	SPRING (CASSETTE)
3	24611236	BACK PLATE (CASSETTE)
4	24604073	SHAFT (BUTTON)
6	24605566	SPRING
7	24611087	BUSHING
8	24611152	FELT WASHER
9	24600060	R/P HEAD
10	24600041	E HEAD
11	24605136	SPRING
12	24611153	HEAD BASE
13	24605567	SPRING
14	24603307	LEVER (F. R.)
15	863120	NUT M2
16	24602322	IDLER AS (P)
17	24605568	SPRING
18	24603308	LEVER (RESET)
19	24611170	WASHER
20	24602323	TAKE UP REEL AS
21	24611154	INTER LOCK PLATE
22	24602390	CAP (REEL)
23	24603309	LEVER (FR UNLOCK)
24	24605569	SPRING
25	24603310	LEVER (P. UNLOCK)
26	24611155	LOCK PLATE (PL)
27	24605570	SPRING
28	24611156	LOCK PLATE (FR)
29	24611272	DAMPER AS
30	24611158	PLATE (REC COVER)
31	24605644	SPRING
32	24605572	SPRING
33	24602325	GEAR (F IDLER)
34	24602326	CAM (SENSOR)
35	24602327	GEAR (A. S.)
36	24611159	HOLDER (CASSETTE)
37	24602328	CAM (EJECT)
38	24603311	LATCH LEVER
39	24602329	PINCH ROLLER AS
40	24605573	SPRING
41	24606226	LUG
42	24605574	SPRING
43	24602391	GEAR (SUPPLY REEL)
44	24611163	MECHANISM CHASSIS
45	24603312	LEVER (SE)
46	24603313	LEVER (PAUSE)
47	24603314	LEVER (FF)
48	24603315	LEVER (REW)
49	24603342	LEVER (PL) B
50	24603317	LEVER (REC)
52	24605575	SPRING
55	24604074	SPACER
58	24611161	LOCK PIN
59	24611162	CAPSTAN SUPPORT
60	24602332	FLY WHEEL AS
61	24602392	BELT
62	24602393	BELT
63	24606252	LEAF SWITCH
64	24611171	WASHER
65	24611164	HOLDER (GEAR)
66	24611274	OIL SEAL
67	24601206	MOTOR AS (67+70)
68	24611165	PLATE (MOTOR)
69	24610723	CUSHION
70	24602394	PULLEY
71	24602334	ARM (F. R. IDLER)
72	24605576	SPRING
73	24602335	ASSIST GEAR (A)
74	24602336	ASSIST GEAR (B)
75	24605577	SPRING
76	24603318	LEVER (P CAM)
77	891035	STOP RING 3.5
78	24606253	LEAF SWITCH
79	24603319	LEVER (CR CAM)
80	24605578	SPRING
81	24603320	LEVER (FR START)
82	24603343	LEVER (FRS)
83	24611166	PLATE (PROTECT)
84	24605579	SPRING
85	24611167	PLATE (REC JOINT)
86	24605580	SPRING
87	24611273	SWITCH PLATE
88	24606254	LEAF SWITCH
89	24605581	SPRING
90	24611168	PLATE (REC CHANGE)
91	24603322	LEVER (PL START)
93	24605582	SPRING
94	24611169	HOLDER (DAMPER)
96	24603324	LEVER (RSW)
99	24602371	BELT (COUNTER)
100	873120	WASHER
101	24611118	LUG
102	24606255	LUG TERMINAL
103		NYLON BAND
105		CONNECTOR AS
106		CONNECTOR AS
107		CONNECTOR AS
108		WIRE
109		WIRE
110		WIRE
111		WIRE
201	838120055	TAPPING SCREW, M2 x 5
202	838120085	TAPPING SCREW, M2 x 8
203	82512010	SCREW, M2 x 10
204	831126062	TAPPING SCREW, 2.6STW+6 BQ
205	801353	SCREW (MOTOR)
206	82112604	PAN-HEAD SCREW, 2.6P+4F
208	831126085	TAPPING SCREW, M2.6 x 8
209	82112605	PAN-HEAD SCREW
210	82111706	SCREW, M1.7 x 6
211	838126065	TAPPING SCREW, M2.6 x 6

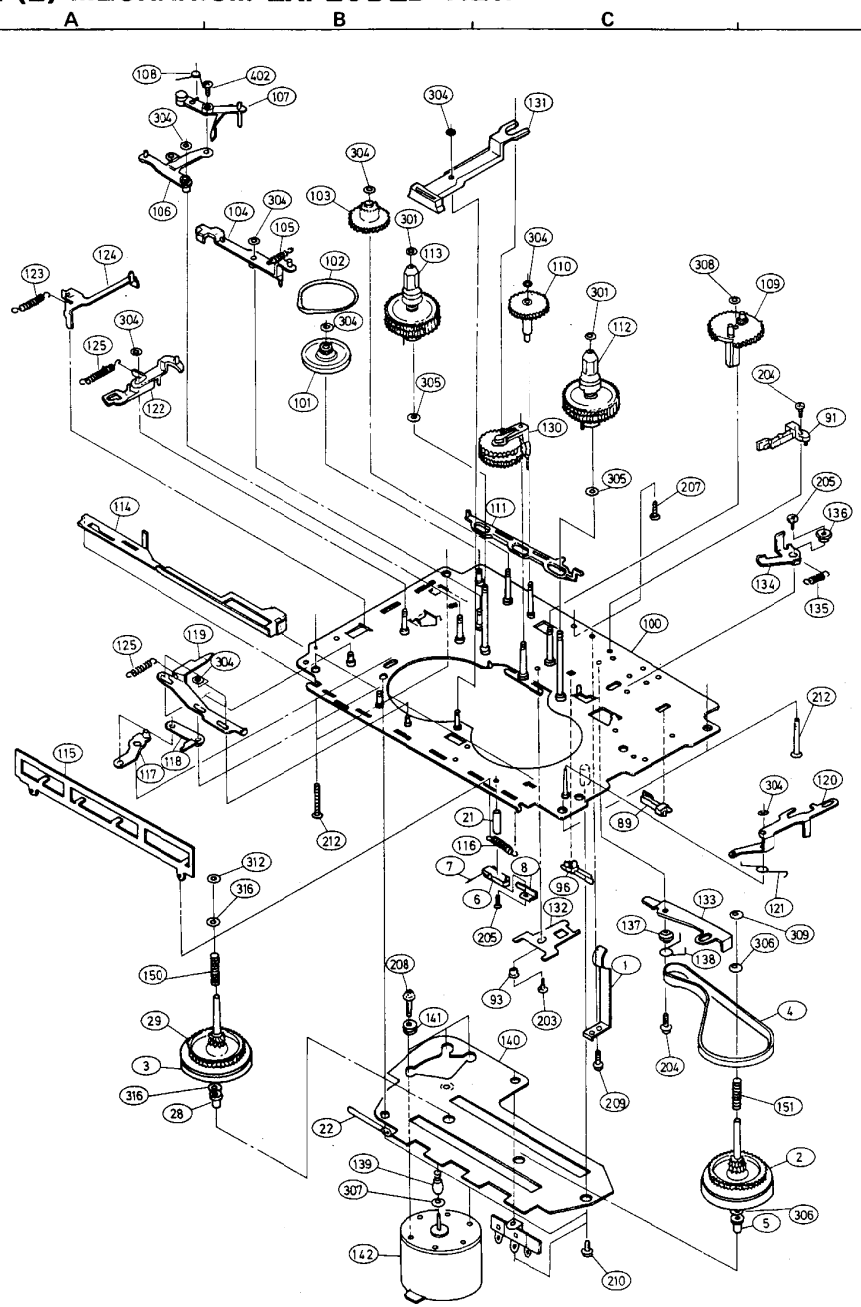
TAPE (2) MECHANISM-PART LIST

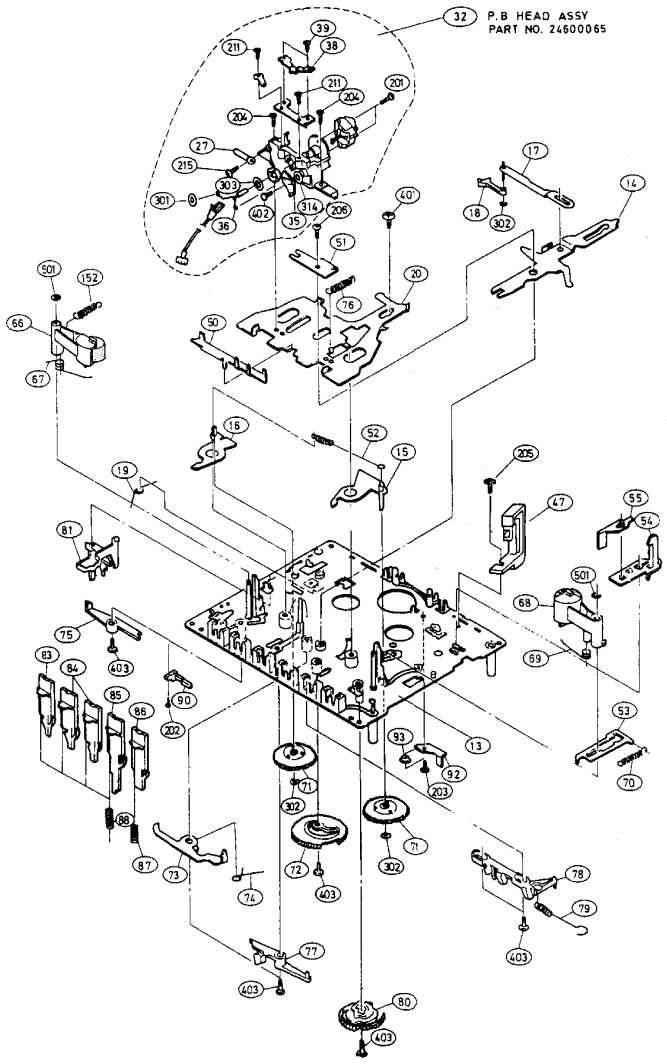
REF. NO.	PART NO.	DESCRIPTION
1	24605619	SPRING
2	24602373	FLYWHEEL AS (C)
3	24602374	FLYWHEEL
4	24602375	BELT
5	24611238	METAL
6	24611239	HOLDER (PAUSE)
7	24611240	LOCK PIN
8	24605620	SPRING
13	24611241	BASE AS (MECHANISM)
14	24607052	ARM (REVERSE)
15	24607053	ARM AS (A) R
16	24607054	ARM AS (A) L
17	24611242	SLIDE PLATE AS
18	24611243	ROCKING ARM
19	24605621	SPRING
20	24611244	BASE AS (HEAD)
21	24604081	COLLAR
22	24611245	LEAD CLAMPER
27	24611246	LEAD CLAMPER
28	24611247	METAL
29	24602376	GEAR (FW)
32	24600065	PB HEAD AS
35	24602388	GEAR (HEAD)
36	24605622	SPRING
38	24605623	SPRING
39	24611251	STOPPER
47	24606251	LEAF SWITCH
50	24611253	SLIDER (H)
51	24605624	SPRING
52	24605625	SPRING
53	24603334	LEVER (SE)
54	24603335	LEVER (EJECT)
55	24611254	CAM (EJECT)
66	24607055	P ARM AS (L)
67	24605626	SPRING
68	24607056	P ARM AS (R)
69	24605627	SPRING
70	24605628	SPRING
71	24602378	GEAR (A)
72	24602379	CAM (ASSIST)
73	24607057	ASSIST ARM AS
74	24605629	SPRING
75	24607058	CHANGE ARM (REC)
76	24605630	SPRING
77	24611255	TRIGGER (ASSIST)
78	24611256	TRIGGER (PAUSE)
79	24605631	SPRING
80	24602380	CAM (PAUSE)
81	24607059	CHANGE ARM (MODE)
83	24611258	BUTTON (PLAY)
84	24611259	BUTTON (F/R)
85	24611260	BUTTON (PAUSE)
86	24611261	BUTTON (S/E)
87	24605632	SPRING
88	24605633	SPRING
89	24606248	LEAF SWITCH
90	24606249	LEAF SWITCH
91	24606250	LEAF SWITCH
92	24603336	LEVER (PROTECT) A
93	24604083	COLLAR
100	24611262	SUB CHASSIS
101	24602389	PULLEY AS (IDLER)
102	24602381	BELT
103	24602382	GEAR (IDLER)
104	24611263	TRIGGER
105	24605531	SPRING (T)
106	24607060	ARM (SENSOR)
107	24611264	SENSOR
108	24605634	SPRING
109	24602383	CAM AS
110	24602384	GEAR (STOP)
111	24611265	ACTUATING PLATE (CLUTCH)
112	24602385	REEL AS (F)
113	24602386	REEL AS (R)
114	24611266	PLATE (SWITCH)
115	24611267	RELEASE PLATE
116	24605635	SPRING
117	24603337	LEVER AS (RELEASE)
118	24611268	RELEASE PLATE (BUTTON)
119	24603338	LEVER AS (RELEASE) FR
120	24611269	CONNECTING PLATE (EJECT)
121	24605636	SPRING
122	24607061	ARM (RELEASE)
123	24605637	SPRING
124	24603339	LEVER (DIR)
125	24605638	SPRING
130	24607062	ARM (DRIVE)
131	24607063	ARM (FR)
132	24611270	SLIDE PLATE (FR)
133	24603340	LEVER (MS SW)
134	24603341	LEVER (B)
135	24605639	SPRING
136	24604084	COLLAR
137	24604085	COLLAR
138	24605640	SPRING
140	24611271	BRACKET (FLYWHEEL)
141	24610723	CUSHION
142	24601207	MOTOR AS (139+142+307)
150	24605641	SPRING
151	24605642	SPRING
152	24605643	SPRING
201	833114067	PAN HEAD SCREW, M14 x 6
202	833117073	PAN HEAD SCREW, M17 x 3
203	833117047	PAN HEAD SCREW, M3 x 5
204	838120057	BIND SCREW, M2 x 5
205	833120057	PAN HEAD SCREW, M2 x 5
206	831120067	PAN HEAD SCREW, M2 x 6
207	838120085	BIND SCREW, M2 x 8
208	801377	SCREW (MOTOR)
209	833126047	PAN HEAD SCREW, M2.6 x 4
210	838126057	BIND SCREW, M2.6 x 5
211	801378	TAPPING SCREW, M2 x 6
212	838126207	BIND SCREW, M2.6 x 20
215	838120057	TAPPING SCREW, M2 x 5
217	82112016	PAN HEAD SCREW, M2 x 16
301	24611278	WASHER, ø1.5 x ø4 x t0.2
302	24611279	WASHER, ø1.5 x ø4 x t0.2
303	24611280	WASHER, ø3.5 x ø5 x t0.25
304	24611281	WASHER, ø1.6 x ø4 x t0.2
305	24611282	WASHER, ø2.0 x ø4 x t0.2
306	24611283	WASHER, ø2.6 x ø4 x t0.25
307	24611284	WASHER, ø1.9 x ø4 x t0.2
308	24611285	WASHER, ø2.0 x ø4 x t0.2
309	24611286	WASHER, ø2.4 x ø4 x t0.3
312	24611287	WASHER, ø2.2 x ø4 x t0.3
314	24611288	WASHER
316	24611289	WASHER, ø2.4 x ø4 x t0.25
401	24611290	BUSHING
402	24611291	BUSHING
403	24611084	BUSHING
501	893025	E2.5 CIRCLIP

TAPE (1) MECHANISM-EXPLODED VIEW



TAPE (2) MECHANISM-EXPLODED VIEW





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